

West Nile Virus Newsletter

Zoonotic Disease Program, Washington State Department of Health

November 30, 2005

Volume 3, Issue 16

Purpose

To keep our partners and other interested entities informed about West Nile virus (WNV)

In This Issue

WNV environmental monitoring ends for 2005

Risk assessment for WNV and insecticides used in mosquito control

DEET distribution in homeless health care

Mosquito control district year-end summaries

Journal articles from CDC's *Emerging Infectious Diseases*

National, northwest, and state surveillance

Previous Issue

British Columbia appears to have escaped WNV

WNV infections in organ transplant recipients

When do mosquitoes prefer a blood banquet or a sugar feast?

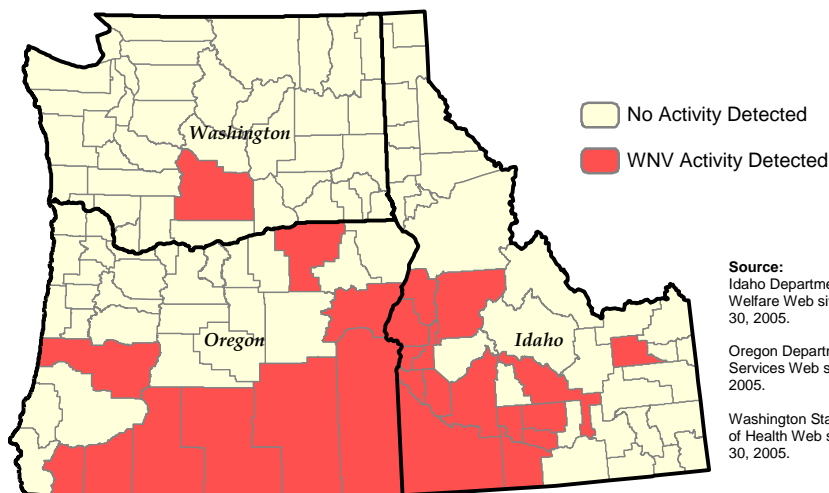
Reporting larvicide use under permit begins

View the [October 27th](#) WNV Newsletter

Subscribe, Submit Articles, Suggestions

Contact Ben Hamilton
benjamin.hamilton@doh.wa.gov

West Nile virus activity in the Northwest



Source:
Idaho Department of Health & Welfare Web site, November 30, 2005.

Oregon Department of Human Services Web site, October 14, 2005.

Washington State Department of Health Web site, November 30, 2005.

WNV Positive in the Northwest

[Washington](#): 1 horse, 1 bird, and 2 mosquito pools

[Idaho](#): 13 humans, 106 horses, 17 mosquito pools, 14 birds, and 1 dog

[Oregon](#): 6 humans, 41 horses, 14 birds, 8 mosquito pools, and 6 sentinel chickens

West Nile virus environmental monitoring ends for 2005

Excerpt from Washington State Department of Health News Release, November 30, 2005

Mosquito activity in Washington has declined with the arrival of colder weather. So, the Washington State Department of Health is suspending lab tests of dead birds and other environmental monitoring for West Nile virus until spring of 2006 when warmer weather returns. Though no human West Nile illness was acquired in our state in 2005, environmental monitoring detected some evidence that the virus is moving into Washington.

“Our monitoring program helps us quickly inform the public about the migration of West Nile virus,” said Maryanne Guichard, director of Environmental Health and Safety. “It detected a positive horse, a positive dead bird and two positive mosquito pools this season; it’s important that people are notified so they can take the simple steps that can help prevent mosquito bites.”

Local and state health departments and mosquito control districts in conjunction with laboratories monitor for West Nile virus in birds, horses, sentinel chickens and mosquitoes. In 2005, 660 dead birds, 52 horses and 576 samples from sentinel chicken flocks were tested. Mosquitoes trapped for identification were grouped into pools for testing; about 915 mosquito pools were tested.

Web Resources

Washington State
Department of Health
www.doh.wa.gov/wnv

Centers for Disease
Control and Prevention
www.cdc.gov/ncidod/dvbid/westnile

US Geological Survey &
CDC ArboNET maps
<http://westnilemaps.usgs.gov/index.html>

Cornell University,
Environmental Risk
Analysis Program
<http://environmentalrisk.cornell.edu/WNV/>

Washington State
University Cooperative
Extension
www.wnv.wsu.edu

Washington State
Department of
Agriculture
www.agr.wa.gov/FoodAnimal/AnimalHealth/Diseases/WestNileVirus/default.htm

Northwest Links

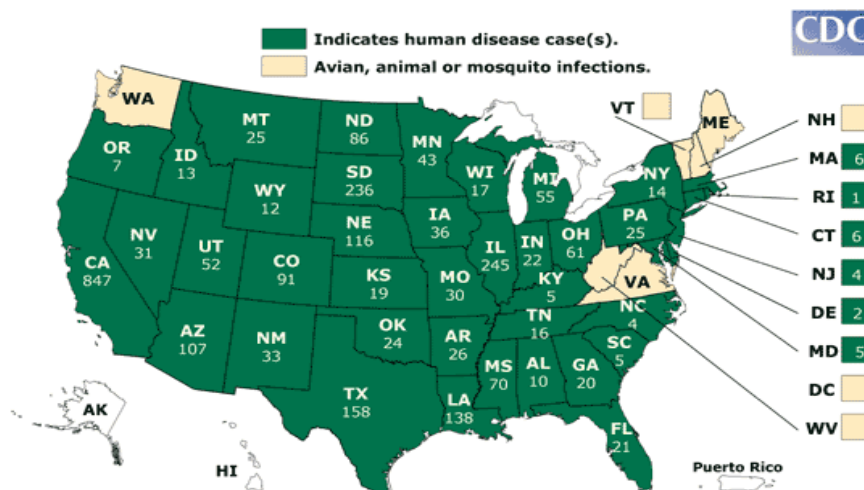
Idaho Department of
Health & Welfare
www.westnile.idaho.gov

Oregon Department of
Human Services
<http://egov.oregon.gov/DHS/ph/acd/diseases/wnil/survey.shtml>

British Columbia Center
for Disease Control
www.bccdc.org

West Nile virus activity in the United States

Reported to CDC as of November 29, 2005



Upcoming Conferences



National Conference on West Nile virus

February 23-24, 2006 in San Francisco, CA
www.wnvconference.org

Organized by Centers for Disease Control and Prevention and managed by the American Society for Microbiology.

Attendees represent federal, state, and local agencies involved in WNV surveillance, prevention, control and research, as well as representatives from academia and industry.



American Mosquito Control Association Annual Meeting

February 26-March 2, 2006 in Detroit, MI
www.mosquito.org

You are invited to attend the 72nd Annual Meeting of the AMCA hosted by the Michigan Mosquito Control Association.

Take this opportunity to network with vector control professionals, researchers and educators from around the world to discuss the science, technology and products used to conduct research and control vectors.

DEET distribution in homeless health care

By Adi Gundlapalli, MD, PhD, Medical Director, Wasatch Homeless Health Care, Inc.

Homeless individuals residing in campsites, streets and vehicles are at increased risk for exposure to mosquitoes and illnesses such as West Nile virus infection. As WNV was slowly establishing endemicity in Utah's mosquito population during the past few years, [Wasatch Homeless Health Care, Inc.](http://www.wasatchhomelesshealthcare.org) started planning for awareness, education and prevention activities amongst the homeless population of the greater Salt Lake City area.

Along with key homeless service providers in the area, our agency started education activities (with flyers) in the clinic and through homeless outreach programs in 2004. For the 2005 season, a mass distribution of repellent with the active ingredient of DEET was undertaken to serve the most vulnerable of our patients, those residing in campsites and on the streets. DEET products were obtained from local government agencies and private donations. With active collaboration with the Volunteers of America Homeless Outreach Program, teams of volunteers went by car and foot to find individuals in known areas of campsites, parks and streets. During two sessions (total 8 hours), with about 25 volunteers and staff, nearly 130 homeless individuals were contacted and offered DEET products along with flyers and education about WNV.



Undergraduate student volunteers Colin Rolfs (Northwest) and Akash Bhatnagar (Johns Hopkins) played a key role in organizing the campaign.

The purpose of the campaign was to raise awareness about WNV among our homeless and our community in general, while establishing a strategic plan to provide targeted outreach to the underserved.

For more information about this outreach program, please contact Dr. Adi Gundlapalli at (801) 364-0138 or email adi@fourthstreetclinic.org.

Mosquito control district year-end summaries

The following is a 2005 summary from four of our state's mosquito control districts. More information about mosquito control districts can be found at <http://www.mrsc.org/Subjects/Governance/spd/Mosquito.aspx>.

Tom Haworth, Adams County Mosquito Control District

Our season was effected by the drought that we seem to be having. In the eastern part of Adams County next to Whitman County there wasn't any water to check or treat this year. This is the first time in 25 years that has been the case. Since 1980, the water in this area has been less each year.

The panhandle area of Adams County continues to have plenty of standing water to treat. However, two of the larger cattle land owners controlled their water much better resulting in less acreage treated for the year. We had more small areas to treat, but overall, less acreage was treated than last year.

We also found that we had less mosquitoes in our light traps compared to last year.

Education and Outreach Materials

Prepare for the 2006 mosquito season now by restocking your supply of WNV brochures, flyers, bookmarks, and posters.



Order free materials at <http://www.doh.wa.gov/ehp/s/Zoo/WNV/education.html>

I feel we had a successful year using less adulticide and having fewer complaints than a normal year. Each summer can be a little nerve racking preparing for the worst to happen, we just have to do our best with what nature and man made problems throw at us. The success of a program is how fast and effective we can react to each situation.

Brian W. Benner, Franklin County Mosquito Control District

In 2005, we hired two full-time staff to serve as Operations Supervisor and Senior Mosquito Control Technician. We also hired five seasonal staff members; only two were hired in 2004. With the increase of our full-time and seasonal staff, our district's effectiveness and efficiency in controlling mosquito larvae in our varied habitats improved dramatically over what was accomplished in 2004.

We implemented an in-house adult mosquito surveillance program. DOH loaned us ten EVS CO2 baited traps and Vec-Test antigen assays. The ten EVS traps were set throughout our district every week (25 weeks) and 110 mosquito pools were tested for the presence of West Nile virus, St. Louis encephalitis and Western Equine encephalitis; all pools tested negative.

Targeting storm drains and catch basins proved to be very effective in controlling mosquitoes in our more urban areas of Pasco, Connell, Mesa, and Kahlotus.

We put into service a database to document, report, and archive all of our mosquito control activities. Kevin Shoemaker of the Benton County Mosquito Control District volunteered his time and expertise to set up the database.

Looking ahead to 2006, our district is hiring another full-time staff member, who will fill the position of Taxonomist and Mosquito Surveillance program technician. We are working with the Franklin County GIS Department to set-up and deploy all of their mapping, data, and layers to our computer network system. We are looking forward to a busy and interesting 2006 mosquito season with the advent of West Nile virus being confirmed in our region.

Jim Thompson, Grant County Mosquito Control District #1

Despite the drought, the irrigation water and natural water bodies in our district are always an area of concern. We had areas of intense breeding, where we couldn't skip treatments for more than a week. This year, our mosquito control treatments reached 123,500 acres, which was an increase, when compared to our past seasonal average of 100,000 acres. The *Culiseta* mosquitoes stuck around all season, which was unusual because they usually taper off. No complaint calls were taken from the residents we directly serve after mid-July, but we did receive calls from folks outside of the district that had mosquito problems.

Al Hubert, Yakima County Mosquito Control District

This was a season of contrasts in our district. Quite a number of mosquito larval breeding sites dried up or had less water than usual. On the other hand, a few sites flooded more than usual and produced mosquitoes throughout the season. Complaints of mosquito biting activity were down drastically, so we only had to fog three times. The previous low was eight foggings, the high was twenty-one, and the seasonal average has been fifteen. I'd like to point out that three of the four isolations of West Nile Virus in Washington this year were just over the county line near Benton County, and none of the four were detected in our district.

DOH WNV Contacts

Toll Free Info Line
1-866-78VIRUS

Publication Requests

Cyndi Free
360-236-3384
cyndi.free@doh.wa.gov

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360-236-3064
jomarie.brauner@doh.wa.gov

Bird and Horse Surveillance

Dorothy Tibbetts
360-236-3361
dorothy.tibbetts@doh.wa.gov

Aquatic Mosquito Control NPDES Permit

Ben Hamilton
360-236-3364
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WNV in Humans

Local Health Jurisdiction
or
DOH Communicable
Disease Epidemiology
206-418-5500 or
877-539-4344

News Releases and Media Response Assistance

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Journal articles

CDC, Emerging Infectious Diseases, Volume 11, Number 11 – November Issue

Evaluation of WNV Education Campaign, E. Averett et al.

<http://www.cdc.gov/ncidod/EID/vol11no11/05-0363.htm>

Assays to Detect WNV in Dead Birds, W.B. Stone et al.

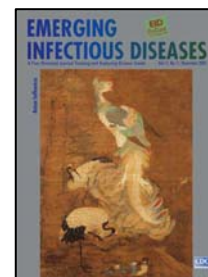
<http://www.cdc.gov/ncidod/EID/vol11no11/05-0806.htm>

WNV Epidemic, Northeast Ohio, 2002, A.M. Mandalakas et al.

<http://www.cdc.gov/ncidod/EID/vol11no11/04-0933.htm>

Long-term Death Rates, WNV Epidemic, Israel, 2000, M.S. Green et al.

<http://www.cdc.gov/ncidod/EID/vol11no11/04-0941.htm>



Washington non-human surveillance summary

Reported to DOH as of November 29, 2005

County	Horses* [†]		Birds**		Sentinel Flocks***		Mosquito Pools****	
	Tested	Positive	Tested	Positive	Tested	Positive	Tested	Positive
Adams	0	0	1	0	0	0	0	0
Asotin	0	0	2	0	0	0	0	0
Benton	1	0	29	0	456	0	277	0
Chelan	0	0	3	0	0	0	0	0
Clallam	0	0	4	0	0	0	0	0
Clark	1	0	15	0	0	0	35	0
Columbia	0	0	0	0	0	0	0	0
Cowlitz	0	0	21	0	0	0	26	0
Douglas	0	0	1	0	0	0	0	0
Ferry	0	0	2	0	0	0	0	0
Franklin	0	0	3	0	0	0	71	0
Garfield	0	0	2	0	0	0	0	0
Grant	1	0	2	0	0	0	0	0
Grays Harbor	0	0	10	0	0	0	0	0
Island	1	0	46	0	0	0	0	0
Jefferson	0	0	12	0	0	0	14	0
King	2	0	110	0	0	0	21	0
Kitsap	0	0	0	0	0	0	132	0
Kittitas	0	0	8	0	0	0	0	0
Klickitat	1	0	4	0	0	0	0	0
Lewis	0	0	19	0	0	0	0	0
Lincoln	0	0	0	0	0	0	0	0
Mason	0	0	24	0	0	0	0	0
Okanogan	0	0	2	0	0	0	0	0
Pacific	0	0	1	0	0	0	0	0
Pend Oreille	1	0	0	0	0	0	0	0
Pierce	1	0	105	0	0	0	81	0
San Juan	1	0	2	0	0	0	0	0
Skagit	1	0	12	0	0	0	0	0
Skamania	0	0	1	0	0	0	0	0
Snohomish	8	0	61	0	0	0	28	0
Spokane	3	0	21	0	0	0	0	0
Stevens	3	0	6	0	0	0	0	0
Thurston	0	0	82	0	0	0	0	0
Wahkiakum	0	0	0	0	0	0	0	0
Walla Walla	1	0	9	0	0	0	0	0
Whatcom	1	0	13	0	0	0	0	0
Whitman	1	0	6	0	0	0	0	0
Yakima	3	1	21	1	120	0	230	2
Totals	31	1	660	1	576	0	915	2

*A total of 52 horses have been tested for West Nile virus. Twenty-one were not included in the table because county/state information was not available. WADDL Report Dated: November 29, 2005.

[†]WNV positive acquired in state.

**A total of 875 birds have been submitted for West virus testing of which 15 birds were unsuitable and not tested for West Nile virus. USGS Report Date: October 11, 2005 and WADDL Report Date: November 21, 2005

***Benton County MCD Report Dated: November 9, 2005

**** Mosquito pools tested by USACHPPM-West Report Date: October 14, 2005 (Week #32), Cowlitz County MCD Report Date: August 25, 2005, Benton MCD Report Date: October 7, 2005, Franklin MCD Report Date: August 24, 2005, Clark MCD Report Date: September 12, 2005, and WADDL Report Date: September 7, 2005.